Carp Lake Park

Draft - Management Plan

May 2011

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Photo Credit: Rob Bell

This document replaces the direction provided in the Carp Lake Provincial Park and Protected Area and Mackinnon Esker Ecological Reserve Purpose Statement and Zoning Plan (2003).

Carp Lake Park
Management Plan

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Plan Highlights

Carp Lake Park is a quality angling destination in the north central interior of British Columbia. It also provides key ecosystem representation in the Nechako Lowlands Ecosection and contains significant cultural heritage values. Key elements of the management plan include:

- encouraging sustainable use of the abundant and natural population of Rainbow Trout;
- protecting the largest contiguous area of sub-boreal spruce forest in the province;
- protecting over 100 recorded archaeological sites;
- working collaboratively with First Nations to manage and protect the natural and cultural resources in the park; and,
- re-establishing and interpreting the historic Duzcho Trail.

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1.0 Introduction

1.1 Management Plan Purpose

A management plan is a document prepared to guide the future management of a park. The breadth of content collected and presented within each management plan works on many levels to help inform the ongoing management process. Fundamentally, a management plan examines the holistic nature of the park's many known values, issues, and interests, and provides a long-term vision and management direction for the park.

This management plan defines the role of Carp Lake Park within the British Columbia protected areas system and establishes goals, objectives and strategies related to the natural and cultural heritage values and recreation opportunities within the park. A key aspect of this management plan is a set of performance measures, which will guide BC Parks in the management plan's implementation.

1.2 Planning Area

Carp Lake Park is located two hours northwest of Prince George, B.C. The park is situated at an elevation of 841 metres, on the Nechako Plateau, and encompasses 38,149 hectares of land and water.

By way of road, Carp Lake Park can be accessed by travelling 141 km north of Prince George along Highway 97 (the John Hart Highway) to the community of McLeod Lake. From McLeod Lake the main Carp Lake campground is 32 km west on a gravel road. The closest communities, towns and cities to the park include McLeod Lake, Mackenzie, Bear Lake and Prince George.

The park area includes Carp Lake, nearby War Lake, numerous smaller lakes and streams, and the eight kilometre waterway that connects Carp and War lakes, which forms the beginning of the McLeod River. Two popular campgrounds within the park (one on War Lake, the other on Carp Lake) offer a total of 102 fully maintained campsites. The larger Carp Lake campground also has a picnic shelter, horseshoe pits and an adventure playground. Boaters and canoeists may also choose among three island campsites, which offer visitors a more secluded camping experience. A short walk from the park's second War Lake campground brings visitors to War Falls, a spectacular cascade of water that comprises two distinct waterfalls separated by about 100 metres of rushing, white water.

A regional context map is provided in Figure 1.

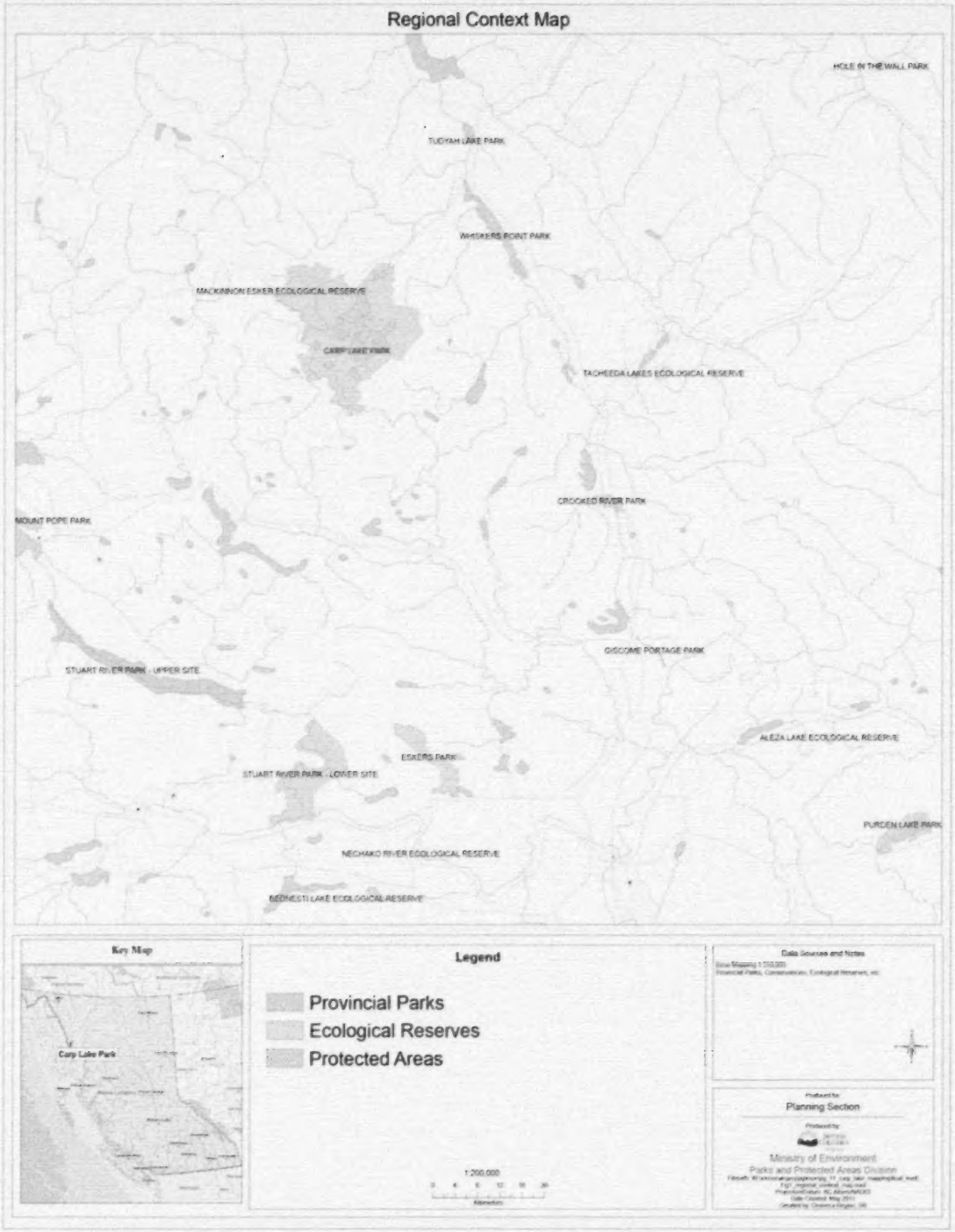


Figure 1: Regional Context Map

1.3 Legislative Framework

The park was originally established in 1973 when the Provincial Government set aside 19,344 hectares around the lake as a Class A provincial park. T

he park doubled in size to 38,149 hectares in 1999 following the recommendations of the Prince George Land and Resource Management Plan. Carp Lake Park is presently named and described in Schedule C of the *Protected Areas of British Columbia Act*.

Class A parks are dedicated to the preservation of their natural environments for the inspiration, use and enjoyment of the public. Sections 8 and 9 of the *Park Act* are the most pertinent in this regard, and direct that a park use permit must not be issued respecting an interest in land or damage or disturbance of natural resources unless, in the opinion of the minister, to do so is necessary to preserve or maintain the recreational values of the park involved.

1.4 Management Commitments and Agreements

Land and Resource Management Plan

In January 1999, the provincial government approved the Prince George Land and Resource Management Plan (LRMP). The Prince George LRMP document organized a set of guidelines to be applied to the management of Crown lands and resources in the planning area. These guidelines included resource management zone boundaries for new protected areas. The following table outlines the recommended permitted uses within the Carp Lake addition:

Carp Lake Addition:	**LRMP Recommendation**
Hunting	Yes, recommended use
Fishing	Yes, recommended use
Fish Stocking/Enhancement	Limited to current tenure use or to designated areas
Trapping	Yes, recommended use
Horse Use and Pack Animals	Limited to current tenure use or to designated areas
Cattle Grazing	No, not a recommended use
Commercial Guiding (hunting)	Limited to current tenure use or to designated areas
Lodges/Cabins	No, not a recommended use
Snowmobiling	Deferred to the BC Parks planning process
Mechanized Activities	Deferred to the BC Parks planning process
Water: Motorized Activities	Deferred to the BC Parks planning process
Aircraft Access	Not an applicable use in this resource management zone
Heli-Skiing / Heli-Hiking	Not an applicable use in this resource management zone
Commercial Guiding (non-hunting)	Yes, recommended use

The LRMP stated that these recommendations should be considered, along with other public input, during the process to develop protected area management plans. Three activities

(snowmobiling, mechanized activities, and motorized water activities) were deferred to this management planning process and are addressed in section 3.

1.5 Relationship with First Nations

The provincial government and First Nations governments in British Columbia are working together to develop a "new relationship" founded on respect, recognition and reconciliation of Aboriginal rights. Carp Lake Park is either fully or partially within the traditional territories of the McLeod Lake Indian Band, the Nak'azdli Indian Band, the Halfway River First Nation, the West Moberly First Nation and the Lheidli T'enneh Band. As such, this management plan recognizes the importance of the natural and cultural values within Carp Lake Park to these First Nations. Ongoing collaboration will occur with respect to the management of the park's natural, cultural heritage and recreational features through First Nation involvement in annual management planning and project specific management and planning.

1.6 Relationship with Local Communities

Carp Lake Park is within the Regional District of Fraser-Fort George and close to the communities of McLeod Lake and Mackenzie. Local communities often have a reciprocal relationship with a local park in that communities provide necessary services to park visitors and the management of the park and a park attracts tourist to the region. Both of these activities contribute to the local economy. A park also contributes to the quality of life of people living in the region. As such, the outlying larger centres of Prince George, Fort St. John and Dawson Creek also have a role to play in being involved in the management of the park.

A community's primary opportunity to partake in setting the management direction of a park is through the development of management plans. Ongoing involvement is important to ensure local communities obtain the most benefits from the park and the appropriate services to support the outdoor recreation activities within the park.

1.7 The Planning Process

The management planning process was conducted in collaboration with the Nak'azdli and McLeod Lake Indian Bands and in conjunction with the MacKinnon Esker Ecological Reserve management planning process. Phase one of the management planning process occurred between the summer of 2008 and spring 2009. This phase involved First Nation Traditional Knowledge Research, and obtaining First Nation community and public input. Key management issues were identified (see management issues Section 2.4) and discussions occurred with First Nation representatives to set preliminary management direction addressing the management issues.

Phase two of the management plan process occurred between the summer and fall of 2009. During this phase, a draft management plan was compiled and a workshop with First Nations and key stakeholders occurred to identify any outstanding issues and input into the proposed management direction.

Phase three of the management plan process *is expected to occur in May 2011*. The phase involves obtaining public input and support for the management plan.

Phase four of the management plan process involves obtaining the necessary approvals for the management plan.

1.8 Adjacent Land Use

Forestry

The primary use adjacent to the park is forestry and the Davie Forest Service Road is used to define portions of the western boundary of the park. Best management practices for activities adjacent to parks and protected areas have been developed to promote stewardship initiatives. The implementation and monitoring of the best management practices is important to reduce and mitigate the impact from industrial and commercial activities adjacent to the park.

The forest service road (FSR) at the park entrance is excepted from the park boundary and ongoing liaison with the Ministry responsible for forest service roads and educational signage is required to ensure park visitor safety when logging trucks are actively using the road. The construction of the forest service road significantly reduced the overlap between the road used to access the park and active logging roads.

Indian Reserves

Indian reserve 3 and Indian reserve 4, both belonging to the McLeod Lake Indian Band, are located on War Lake and Carp Lake respectively. Working closely with the McLeod Lake Indian Band is necessary to ensure uses in the reserves and the park are compatible.

2.0 Values and Roles of the Park

2.1 Significance in the Protected Areas System

Carp Lake Park fulfills regionally and provincially important conservation, cultural heritage, and recreation roles within the province's parks and protected areas system. Some of these include:

- Protecting the largest contiguous area of sub-boreal spruce forest in the province;
- Protecting over 100 recorded archaeological sites including the historic Duzcho/Fort St. James-Fort McLeod Trail; and,
- Providing a high quality angling opportunity in the north central interior of British Columbia.

2.2 Biological Diversity and Natural Heritage

British Columbia is the most biologically diverse province or territory in Canada. The conservation of this rich biodiversity means that ecosystem, species, and genetic diversity and the processes that shape them are maintained over the long-term. The province is managing biodiversity conservation at the landscape scale by protecting large, connected areas of the land base distributed across the province and managed with consideration of adjacent values. At the species and communities level, British Columbia uses various decision support tools maintaining its rich biodiversity.

The natural heritage values in Carp Lake Park are described by aquatic and terrestrial ecosystem components.

Aquatic Ecosystem Values

Water

Carp Lake Park includes all of Carp Lake, nearby War Lake, numerous smaller lakes and streams and the eight kilometre long waterway between Carp Lake and War Lake that forms the beginning of the McLeod River.

These water resources play a significant role in ecosystem integrity and are important components of the natural, cultural and recreation roles of the park. The McLeod River between Carp Lake and War Lake is important as a Rainbow Trout spawning area.

Wetlands

Interior wetland ecosystems generally include marshes, fens, and swamps.

Analogous with the Nechako Lowlands Ecosection, Carp Lake Park is dotted with wetland ecosystems. These wetlands are important habitat for a variety of species including waterfowl, migratory birds, fish, and moose. Wetlands in the sub-boreal spruce ecosystem are considered to be one of the most important breeding centres in the world for Barrow's Goldeneye (BC Ministry of Forests, 1998).

Fish

The numerous lakes and streams within Carp Lake Park support several naturally reproducing fish species including: Rainbow Trout, Burbot, Northern Pikeminnow, White Sucker and Red Side Shiner.

Occasionally, Bull Trout may be found in the upper stretches of the McLeod River downstream of War Falls. Bull Trout are not immediately threatened or endangered, but are considered to be a species of special concern due to characteristics that make them particularly sensitive to human activities and natural events. As a result, Bull Trout are sensitive to human activities and natural events that lead to changes in temperature, substrate composition, and habitat complexity (Rieman and McIntyre, 1993; cited in Cannings and Ptolemy, 1998).

Terrestrial Ecosystem Values

Geology

Carp Lake Park lies within the Nechako Plateau, a component of British Columbia's vast interior plateau. Over most of the area around Carp Lake, the Nechako Plateau is covered by glacial drift materials or till. Most of the deposits are thought to be less than eight metres deep but some deeper depressions are thought to be overlain with up to 100 to 150 metres of material. Because of these extensive glacial deposits, bedrock exposures are sparse and most areas of the park are well drained. The only exceptions are the old melt-water channels from receding glaciers, which tend to contain more fine textured sands and organic soils. Bog conditions prevail in these channels and in other low lying depressions.

The many drumlin features in the park are a result of the last glacial advance re-arranging the glacial till into elongated hills. These landform features provide evidence to the direction of the last ice flow. Other prominent landform features include Carp Hill, a resistance mass of rhyolite and dacite rock, and an esker complex found south of Carp Lake by Esker Bay.

Vegetation

Vegetation communities are the basis for most wildlife habitat and contribute to the visual and recreation attractions of the park. Most of Carp Lake Park falls within the Sub-boreal Spruce Biogeoclimatic Zone. A small area of the park falls within the Engelmann Spruce/Sub-alpine Fir zone. Characteristic tree species of these zones include lodgepole pine, white spruce, subalpine fir, trembling aspen, paper birch, black cottonwood, scrub birch, mountain alder and Sitka alder. The climax forest cover appears to be dominated by white spruce and subalpine fir. Natural disturbance processes such as fire, disease and insect outbreaks, are fundamental to maintaining the complex forest ecosystems.

Wildlife

Of the large mammals which occur in the park, moose are the most prevalent. They feed regularly in the marshes and waterways around Carp Lake and the cows often seek refuge from predators on islands during calving season. Other mammals found in and around Carp Lake include grizzly bear, black bear, wolves, wolverine and porcupine.

Waterfowl are also common particularly during migrations and nesting seasons. As many as seventeen nesting pairs of common loon have been counted on Carp Lake. Ruffed grouse are commonly seen, particularly on the islands.

Role

Carp Lake Park protects the largest contiguous moist cool Sub-boreal Spruce Biogeoclimatic Zone (SBSmk1) and contributes 91.37% of the overall representation of this ecosystem in the province. The park also provides representation of the Nechako Lowlands Ecosection and its typical glacial features (specifically drumlins and eskers).

2.3 Cultural Heritage

Values

Carp Lake has long been used by aboriginal people. Over one hundred archaeological sites have been recorded around Carp Lake and only half of the lakeshore has been surveyed. Of particular importance is the First Nation trail used by the fur traders as a supply route between Fort McLeod and Fort St. James. This trail is referred to as the Duzcho Trail in recognition of the original aboriginal route.

When Simon Fraser returned to Fort McLeod in 1806, he made the first known documentation of First Nations at Carp Lake. In his journal he stated that James McDougall, "...informed us that several of the Carriers are daily expected here, and that all the Indians of this place are at the Carp Lake, where there are immense numbers of fish of the Carp kind[1], ..." (Lamb, 1966).

[1] "Fish of the carp kind" likely refers to the Northern Pikeminnow.

The aboriginal people referred to in Simon Fraser's journal are likely ancestors of the present day T'sekene Indian Band (McLeod Lake Indian Band) and Nak'azdli Indian Band. The following provides a brief history of the T'sekene and Nak'azdli people as provided by these First Nations and from their perspective.

A brief history of the Tse'khene people

In order to understand the history of the Tse'khene people of McLeod Lake, it is necessary to examine the history of the larger Sekani Nation. The Sekani are a western extension of the Athapaskan speaking people of northern Canada (MLIB, 2009). They are traditionally a society of nomadic hunters and were known to have lived in smaller family groups, or bands, spreading out across the territory where they would be free to migrate in harmony with the seasonally available resources (Denniston, 1981). Before European contact, four main Sekani groups existed. These included: the Tse'khene, the Yutuwichan, the Sasuchan, and the Tseloni. The Yutuwichan (meaning "Lake People") and the Tse'khene (meaning "People of the Rocks") are said to have eventually gathered at McLeod Lake where they were more readily able to access the Fort McLeod trading post (Jenness, 1937).

Today, the Sekani that settled in and around McLeod Lake are formally known as the McLeod Lake Indian Band or Tse'khene. They are a highly independent, business-oriented people whom have effectively undergone many governmental and organizational changes in recent years. The band has established several successful band managed businesses and successfully reached an agreement with government adhering to Treaty 8 (MLIB, 2009). Carp Lake remains an important area within the Tse'khene traditional territory.

A brief history of the Nak'azdli people

In order to understand the history of the Nak'azdli people, it is necessary to understand the history of the larger Carrier Nation. The Carrier people or Dakelh, meaning people who "travel upon water," are Athapaskan speaking peoples. They live in north central British Columbia extending from the Coast Mountains to the Rocky Mountains. They have a well established social and governance system called the Bahl'ats. In Bahl'ats, the social structure and territory boundaries are affirmed, disputes are settled, and wealth distributed (CSTC, 2007).

A key component of the Bahl'ats system is the keyoh. A keyoh is a geographically specific land base where the family head or hereditary chief is the steward of that piece of land (CSTC, 2007). Carp Lake is within the Julian Family Keyoh and the Julians are members of the Nak'azdli Indian Band. The Julians also hold trapline rights in much of the park. As such, the area around Carp Lake has important cultural value to the Julian family and Nak'azdli Indian Band.

Historic Duzcho Trial/ Fort McLeod-Fort St. James Historic Trail

The historic trail between Fort McLeod and Fort St. James was part of a network of aboriginal trails prior to the arrival of Europeans to the area. The trail was known as the Duzcho Trail meaning "big log" or "big log jam." This trail was used as a trade and communication route linking the Carrier and Sekani people. After the establishment of the first fur trading posts

west of the Rockies at McLeod Lake and Stewart Lake in 1805 and 1806 respectively, the trail became an important overland route linking Fort McLeod and Fort St. James. There are a number of references to the trail in early fur trader's journals and winter travel using dog sled was a common means of travel.

Cultural Use

Many of the archaeological sites in Carp Lake Park are found in relatively close proximity to the lakeshore and to the historic trail between Fort McLeod and Fort St. James. This appears to suggest that Carp Lake was an important seasonal stopping ground for food and as a trade route between the Carrier and Sekani First Nations. Cache pits are the most common archaeological feature but other features include a fish weir, a stone cairn, and habitation sites. Today, the natural resources in the park remain an integral part of the food, social and ceremonial harvesting and cultural activities of local First Nations.

Role

The land and resources within Carp Lake Park continue to be important to First Nations for food, social and ceremonial purposes. These traditional uses are recognized as important values to conserve and protect. The park also protects the historic Duzcho Trail between Fort McLeod and Fort Saint James.

2.4 Recreation

Recreation Opportunities

Carp Lake Park can be accessed by travelling 141 km north of Prince George along Highway 97 (the John Hart Highway) to the community of McLeod Lake. From McLeod Lake, the main Carp Lake campground is 32 km west on a gravel road.

Carp Lake is an important recreational fishery in the Central Interior of British Columbia and angling is the main reason visitors come to the park. Rainbow Trout is by far the most popular angler catch. Angling is the single most popular recreation activity. There are a number of other outdoor recreation opportunities such as boating, camping, hunting, hiking, and scenic viewing. The 102 vehicle accessible campsites (90 on Carp Lake, 12 on War Lake) and three island campsites on Carp Lake (White Spruce, Spirea, and Balsam islands) are purposely left in a semi-rustic condition so visitors can enjoy the natural environment setting. Use in the park is currently well below the peak in the 1980s.

A small network of maintained trails is available between the Carp Lake Campground and Rainbow Lake. Another maintained trail is provided from the Carp Lake Campground south

along the lake to a sandy beach. As the condition of the Duzcho Trail improves more day hiking opportunities will be available.

The main attraction to Carp Lake Park in the winter is ice fishing. A user maintained cabin in Kettle Bay is provided for overnight stays. Winter users must travel the unplowed forest service roads to access the park and there are no formal staging areas outside of the park. As such, winter recreation opportunities are limited. Local residents are the main users in the winter and typically access the park by snowmobile.

Commercial recreation is an important component of the province's tourism industry and is a major contributor to the British Columbia tourism economy. Currently, a guide outfitter operates in the park under a park use permit. The guide outfitter has a camp located in the southeast portion of the park and is required to hold a guide territory certificate.

Role

Carp Lake Park provides a high quality angling experience in the central interior of British Columbia and provides a variety of supplementary outdoor recreation opportunities including camping.

2.5 Other Attributes

Trapping

Most of the park is within trapline territory TR0724T009. A portion of three other trapline territories (TR0724T005, TR0724T010, and TR0724T011) extend into the park. Trapline territory holders have the right to trap fur bearing animals within the park but they are required to obtain a park use permit. First Nation trapping for food, social and ceremonial purposes does not require a park use permit.

3.0 Management Direction

3.1 Ecosystem-Based Management

Ecosystem-based management is a holistic approach to managing natural values that integrates ecological, social and economic considerations into management decisions. There are many definitions of ecosystem-based management; however, there is a common understanding that a landscape level approach[2] is used to sustain ecosystem processes while incorporating the best existing ecological knowledge with human considerations (i.e., social and economic considerations such as protecting facilities and adjacent commercial forests from wildfire). The ecosystem-based management approach used in Carp Lake Park will be based on the following set of principles:

- Ecosystems are maintained and conserved within a dynamic and changing environment.
- Ecological boundaries are considered when making management decisions.
- Ecological, social, economic, and traditional knowledge considerations are integrated recognizing that humans are part of the ecosystem.
- Inter-agency cooperation is essential given that ecosystems extend beyond jurisdictional boundaries.
- The practice of adaptive management is emphasized.

3.2 Vision

Carp Lake Park is an island of natural protection in a surrounding landscape of forest development. The park's natural values are managed to ensure ecological integrity of terrestrial and aquatic ecosystems. The fish and wildlife populations are healthy and naturally sustaining.

Angling is the main attraction to the park and frontcountry camping facilities are keeping with the park's natural setting. People of all ages are able to enjoy a semi-remote outdoor recreation experience.

Park visitors are provided with unique opportunities to experience First Nations' history first hand. First Nations are involved in the heritage preservation, interpretation and education of their ancestral use and habitation in the region.

3.3 Aquatic and Terrestrial Ecosystem Management

Goal 1: The species supported by aquatic and terrestrial ecosystems are healthy and naturally sustaining.

[2] A landscape level approach is one that considers ecological processes at the landscape scale such as evolution, the movement of organisms, and ecosystem development.

Typical in the sub-boreal spruce ecosystem, dense forests on gently rolling hills mixed with numerous wetlands provide habitat for a variety of plant and wildlife species. Moose is the most common large ungulate and the wetlands support a wide variety of waterfowl. Since Carp Lake Park protects a large contiguous tract of the sub-boreal spruce ecosystem, species and ecosystems have a higher probability of being healthy and naturally sustaining. This allows for a greater opportunity for species and ecosystems to adapt to pressures such as climate change.

Aquatic Ecosystems

The McLeod River between Carp Lake and War Lake is an important Rainbow Trout spawning area. Further surveys are necessary to understand the importance of other creeks and waterways to fish resources.

There was a concern during the 1980s that angling pressure was having a negative effect on the population status of Rainbow Trout in Carp Lake; however, a creel survey conducted in 2004 showed that Rainbow Trout appeared healthy and there were no apparent problems with the productivity of the lake (Clarke, 2005). Visitor rates in the park are well below the rates in the 1970s and early 1980s. Compliance with fishing regulations and visitor rates will be monitored to evaluate angling pressure on the Rainbow Trout population.

The population status of Burbot is unknown at Carp Lake. During the 1991 creel survey, an estimated 252 Burbot were removed from Carp Lake. Burbot were not assessed in the 2004 creel survey. Determining the status and health of Burbot is a high priority.

Terrestrial Ecosystems

Natural disturbance processes such as fire, disease and insect outbreaks, are fundamental to maintaining the complex forest ecosystems. However, management actions are sometimes required due to several factors. These include: an increase in fuel loading caused by the removal of fire from the ecosystem and insect outbreaks; and, the importance of safeguarding recreation infrastructure and adjacent commercial forest values.

The Fire Management Plan for Carp Lake Park (2000) assessed the fire hazard throughout the park and the extent of the bark beetle outbreak. The plan identified that a short-term goal should be to maintain as much old growth spruce as possible, while a long-term goal should be to implement a stand-conversion program in order to achieve a mixture of seral stages. Three areas of the park were identified for potential prescribed fires. Further assessment is required to determine if prescribed fire is a feasible management option. A detailed fire history study will help to understand a natural range of seral stage distribution in the park.

Climate Change Considerations

The climate trend in the sub-boreal interior is typified by warmer temperatures and more precipitation. The increase in precipitation is relatively constant throughout the year, whereas the increase in temperature is most noticeable in the winter months. What this

means for the species and ecosystems in Carp Lake Park is not fully understood. At the species and community level, the highest priority species and ecosystems likely to be sensitive to a changing climate will be monitored. Regular updates on distributions and trends of species and ecosystems will allow us to respond rapidly with appropriate conservation measures. At the protected area level, ongoing monitoring of key environmental elements and the rate at which they are changing can help managers identify and assess management options to maximize adaptation opportunities and minimize negative climate change impacts on the parks.

Objectives	Management Strategies
1.1 Maintain the long-term natural diversity of terrestrial and aquatic ecosystems.	• Continue to update BC Parks' Conservation Risk Assessment tool to identify significant risks to the conservation values in the park. • Monitor adjacent land activities and access points to identify issues that may impact park values. • Liaise with First Nations, provincial natural resource ministries and the Fraser-Fort George Regional District to ensure park values are integrated into adjacent land use planning. • Ensure best practices for boat re-fueling and camping are clearly communicated to park visitors. • Conduct a wetland classification overview to identify highly productive wetland habitat. • As resources permit, conduct surveys of the creeks flowing into Carp Lake to gain a better understanding of fish spawning habitat. • Use appropriate tools to identify priority conservation actions for all known species and ecological communities at risk. • For species at risk listed by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) found within the park, work with other agencies in the development and implementation of recovery strategies.
1.2 Increase knowledge of Burbot population, distribution and health in Carp Lake	• Integrate Burbot into periodic Rainbow Trout creel surveys to understand angler effort and exploitation patterns in Carp Lake. Creel survey questions should include assessment of Burbot angling effort with attention being paid to developing more accurate survey methods (i.e., set-line count surveys). • As informed from angler use studies, conduct a population assessment to determine status of Burbot in Carp Lake.
1.3 Ensure compliance with freshwater fishing regulations	• Regularly conduct compliance checks in the park with a focus of educating anglers of the freshwater fishing regulations.
1.4 Implement a stand conversion program to maintain a natural range of seral stages and species distribution.	• Conduct a detailed fire history study that extends beyond the park boundary. Based on this study, establish a natural range of seral stage and species distribution within Carp Lake Park. • Once a natural range of seral stage and species distribution has been set, implement measures to maintain these targets. • Work closely with the BC Ministry of Forests and Range Protection Branch to help maintain the seral stage and species distribution targets.
1.5 Gain a better understanding of the effect of climate change on species and ecosystems	• Identify and monitor key environmental elements and the rate at which they are changing in Carp Lake Park such as snow depth, ice break-up, and creek temperatures. • Identify species sensitive to the potential negative effects of climate change and identify options for managing those effects.

3.4 Cultural Heritage Management

Goal 2: The cultural heritage values in Carp Lake Park are protected and respected.

It is important to ensure the archaeological sites and traditional use sites are conserved and

protected. As such, four cultural zones have been established to highlight areas where greater emphasis on minimizing potential impacts to cultural heritage resources is required. It should also be noted that even though there are no recorded archaeological sites in the Carp Lake and War Lake campgrounds, minimizing and mitigating impacts in these areas is important.

The historic trail between Fort McLeod and Fort St. James is over-grown and there is interest to re-establish the trail by recognizing and interpreting the pre and post colonial significance of the trail in British Columbia. Figure 3 shows the approximate location of the trail through Carp Lake Park. A portion of the historic trail goes through IR 3, therefore an alternate route should be considered around Sekani Bay.

Objective	Management Strategies
2.1 Work closely with First Nations in managing and protecting the natural and cultural resources within the park.	• Continue to conduct research with First Nations to increase the knowledge and understanding of pre-contact history of the area. • Ensure First Nations are involved in the ongoing management of the park by participating in annual management planning and project specific management and planning wherever possible. • Work closely with First Nations to protect the cultural heritage features in the park putting a high priority on monitoring and mitigating impacts of recreation on the Carp Lake islands. • Where appropriate, develop educational and information material on the cultural heritage features in the park focusing on the themes of traditional use, the historic trail and trade. • Establish a monitoring program for known cultural heritage feature. • Implement measures to protect cultural heritage features where needed.
2.2 Re-establish the Duzcho Trail and interpret its historic significance to Northern British Columbia.	• Work closely with First Nations and British Columbia Recreation Sites and Trails to re-establish the historic Duzcho Trail. • Consider working with Parks Canada, First Nations and British Columbia Recreation Sites and Trails to seek National Historic Site Designation from Fort St. James along the trail to Fort McLeod. • Develop and display cultural heritage and trail use information material at key locations along the trail especially around the campground at Carp Lake.

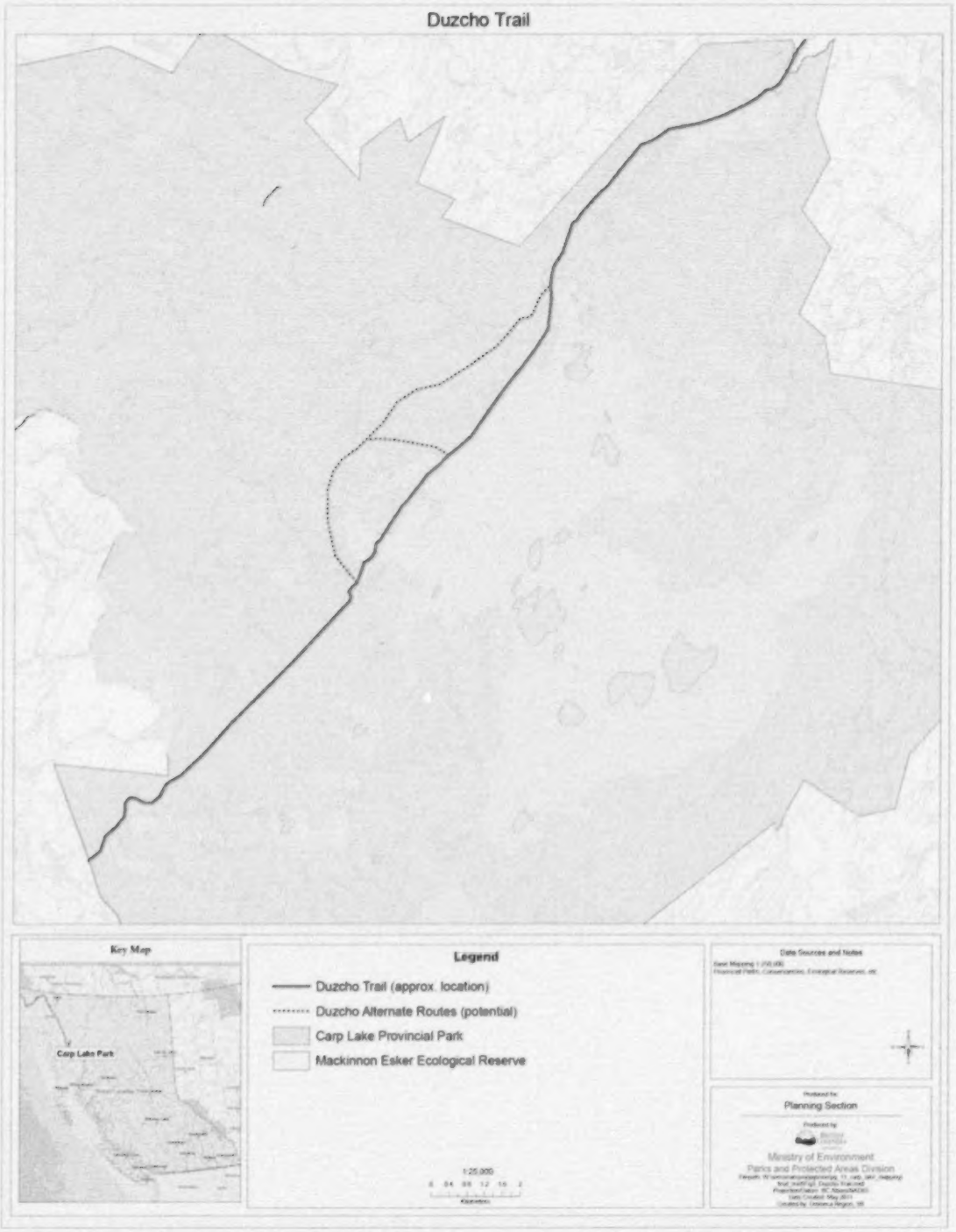


Figure 2: Duzcho Trail

3.5 Outdoor Recreation and Tourism

Goal 3: Carp Lake Park is a quality angling destination and provides a variety of supplementary outdoor recreation experiences.

The outdoor recreation features in Carp Lake Park are reflective of the park's natural setting. The abundance of fish and wildlife and the expansive lakes and waterways together with the type of facilities, recreation activities and location 30 kilometres away from the main highway, allow visitors to enjoy a semi-remote natural environment experience.

Access

The park access road is occasionally used by logging trucks. It is important to liase with the Ministry responsible for Forestry and Forest companies, and post signs on the access road to promote visitor safety.

An old logging road through Carp Lake Park and MacKinnon Esker Ecological Reserve was the main access to Carp Lake from Fort St. James. This access route is overgrown and will be maintained as a gated multi-use trail provided that the route is removed from the ecological reserve boundary (see MacKinnon Esker Ecological Reserve Management Plan). This management plan supports the Mackinnon Esker Ecological Reserve Management Plan.

Remnants of an old Forest Service recreation site is located at Carr Lake 11 kilometres from the Carp Lake campground along the multi-use trail between Carp Lake and the Mackinnon Esker Ecological Reserve. This site could be developed as an alternate camping and angling destination should there be a need to increase recreation opportunities.

Day Hiking

A small network of maintained trails is available between the Carp Lake Campground and Rainbow Lake. Another maintained trail is provided from the Carp Lake Campground south along the lake to a sandy beach. As the condition of the Duzcho Trail improves more day hiking opportunities will be available.

Angling

Providing quality angling experiences is a high priority for the management of Carp Lake Park. These experiences will be provided while encouraging sustainable use and stewardship.

In order to avoid Bear/human conflicts as a result of fish carcasses, a fish carcass disposal program will be maintained.

Hunting

Hunting is an allowable use within Carp Lake Park. The entire park is within Wildlife Management Unit 7-24.

Boating

Motorized boating is an allowable use on Carp Lake. A boat launch is provided along with a trailer parking lot. There are also opportunities for canoeing, kayaking and small boat sailing.

Horse Use

Currently, there is no horse use permitted in Carp Lake Park. Future horse use may be considered on the Duzcho Trail and the multi-use trail between Carp Lake and Mackinnon Esker Ecological Reserve provided appropriate measures are taken to mitigate impacts.

Mountain Biking

Mountain biking is appropriate on park roads, the multi-use trail between Carp Lake and MacKinnon Esker Ecological Reserve, and on the Rainbow Lake and Carp Lake Campground trails.

Winter Recreation

Snowmobile use in Carp Lake Park is permitted on park roadways, frozen waterways and the multi-use trail between Carp Lake and MacKinnon Esker Ecological Reserve.

Commercial Recreation

Commercial recreation activities considered appropriate in Carp Lake Park include guide outfitting, angle guiding, and other guided services for activities permitted in this management plan.

Objectives	Strategies
3.1 Encourage sustainable use of the fishery in Carp Lake.	• Promote family angling events in conjunction with established events such as Parks Day and B.C.'s Family Fishing Weekend. • Conduct angling compliance checks as a means to monitor and educate angling use. • Monitor visitor attendance to identify a possible increase in angling pressure on the fishery. If attendance increases to 4,000 parties per year, evaluate the need to conduct another creel survey.
3.2 Provide a variety of compatible and safe outdoor recreation opportunities to diversify visitor experiences.	• Monitor campground and day use through satisfaction surveys and comments cards and use these results to determine future facility needs. • Provide visitor information on recreation opportunities and natural and cultural features in the park on park information boards and signs. • Ensure that adequate direction signs and information appropriate to the anticipated users are provided on all trails. • Implement backcountry recreation impact monitoring (BRIM) activities on the island campsites and promote the stewardship and use of the island campsites through education and information material. • Ensure BC Parks' impact assessment process is used when considering new recreation opportunities that are compatible with the park objectives. • Liaise with the Ministry responsible for forest service roads and post signs on the Carp Lake Access Road to ensure visitors are aware when the road is being used by logging trucks.

3.6 Zoning

BC Parks uses zoning to assist in the planning and management of protected areas. In general terms, zoning divides an area into logical units to apply consistent management objectives. The zones reflect the intended land use, the degree of human use desired, and the level of management and development required.

At one end of the spectrum, the Intensive Recreation Zone indicates a portion of a protected area that is appropriate for high levels of recreation and facility development. At the opposite end, the

Wilderness Conservation Zone indicates an area of a protected area that receives the highest level of resource protection and minimal human presence. In addition, there are four additional zones providing a range of conservation and use priorities – Cultural Zone, Nature Recreation Zone, Special Feature Zone, and Wilderness Recreation Zone.

Carp Lake has six management zones. The objective for each zone and a brief discussion on the size, zone boundary and management intent is described below. A zoning map is provided in Figure 4.

Carp Lake/War Lake Intensive Recreation Zone

Zone Objective

To provide vehicle accessible outdoor recreation opportunities in a natural setting.

Description

This zone is 267 hectares in size and makes up 0.7 % of the park. The boundary is defined by the footprint of existing recreation infrastructure, including park roads and surrounding area. Management actions will be geared toward ensuring public safety, maintaining natural features, and delivering quality recreation services. It is also important to minimize potential impacts to cultural heritage values by restricting use to hardened areas.

Carp Lake Nature Recreation Zone

Zone Objective

To protect scenic values and provide nature recreation opportunities in a largely undisturbed natural environment.

Description

This zone is 36,586 hectares in size and makes up 95.7 % of the park. It covers the majority of the park and emphasizes scenic values and backcountry recreation opportunities in a largely undisturbed natural setting. Management actions will be oriented to maintaining a natural environment and high quality recreation experiences (primarily angling).

Carp Lake Cultural Zones

Zone Objective

To recognize and protect the special cultural heritage values associated with Carp Lake and the Duzcho Trail.

Description

These zones combined are 1,366 hectares in size and make up 3.6 % of the park. There are four zones:

1) McLeod River;
2) Carp Islands;
3) Carp Lake – Sekani Bay; and,
4) Duzcho Trail west.

These zones highlight areas where greater emphasis on minimizing potential impacts to cultural heritage resources is required. Use on existing trails and the island campsites will continue while confining activities to hardened areas. Re-establishing and interpreting the Duzcho Trail is supported. Management actions will be oriented toward working with First Nations to maintain and conserve cultural heritage resources.

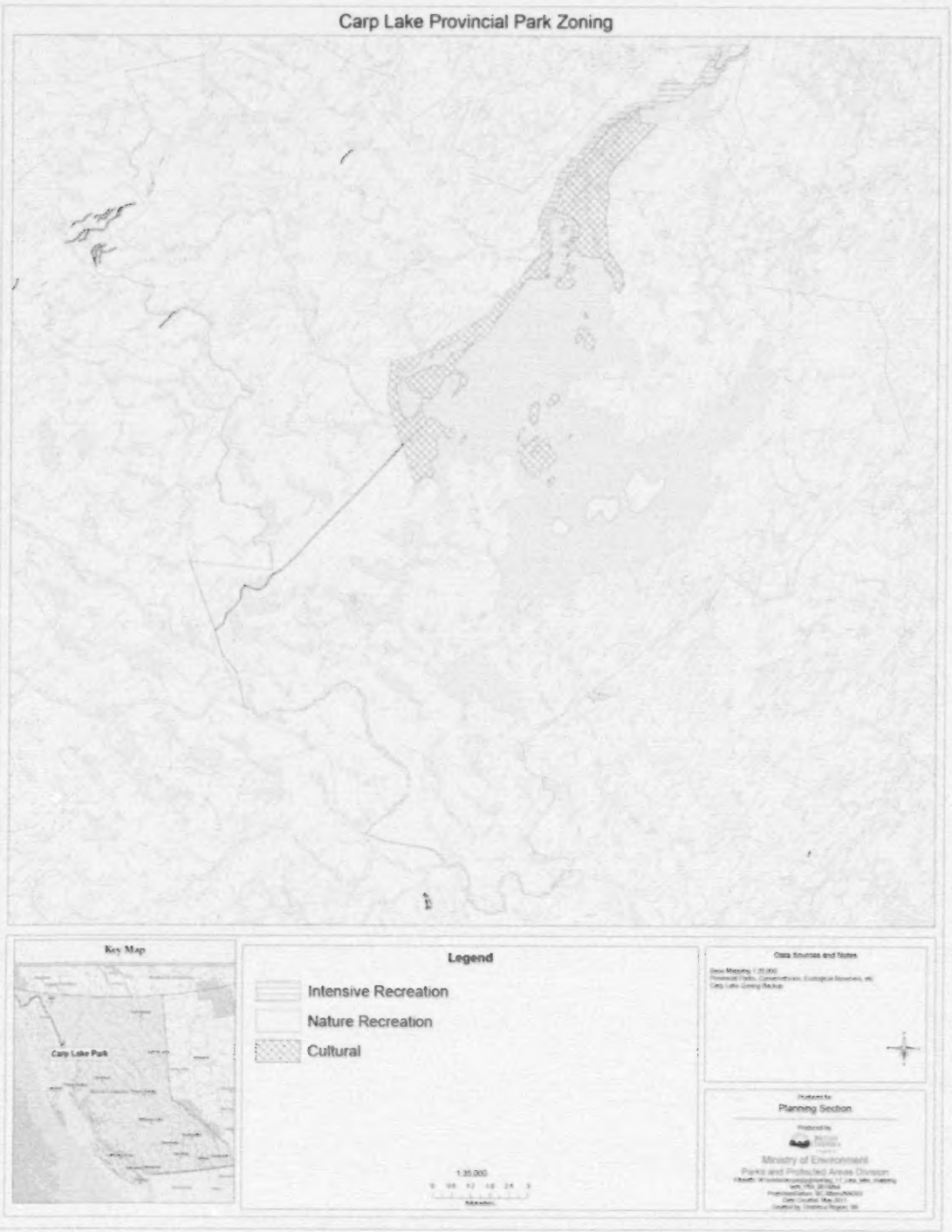


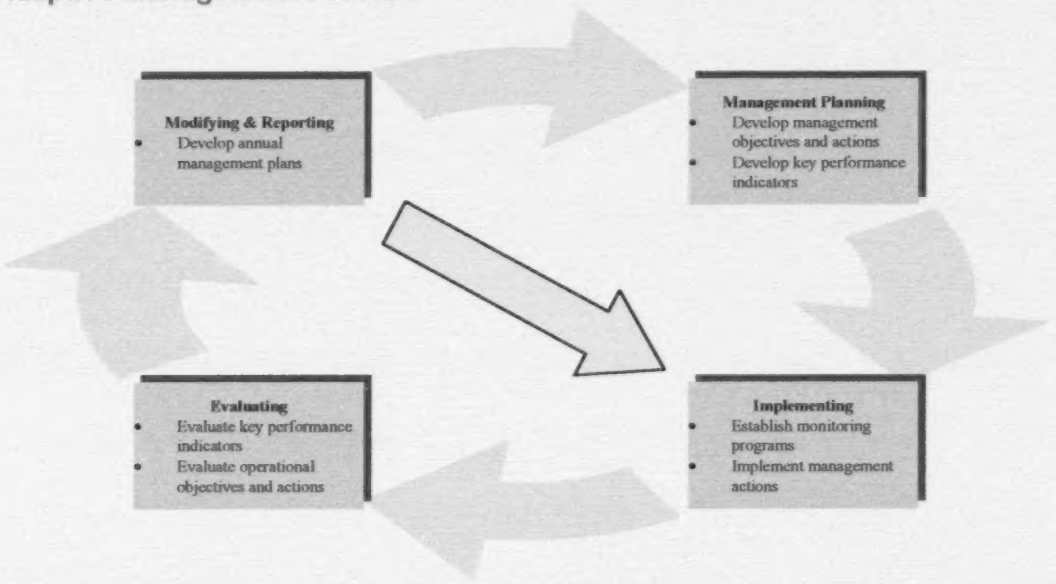
Figure 3: Zoning Plan

4.0 Performance Measures

Key Performance Measures

Key performance measures based on the concept of adaptive management will guide the Ministry of Environment in the implementation of the Carp Lake Management Plan. Priority management objectives will be monitored and evaluated in an adaptive management process. The use of performance measures also provides a mechanism to report out on performance. As a living document, managers may decide to improve upon the targets or add indicators as more baseline information becomes available and provincial priorities change. The performance measures are provided in the Appendix.

Adaptive Management Process



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Appendix – Performance Measures Table

Objective	Indicator	Target	STATUS November 2010
Aquatic Ecosystems			
Increase knowledge of Burbot population, distribution and health in Carp Lake.	Burbot population assessment, angler use and behaviour	Complete a synoptic Burbot creel survey by 2011 and develop plan of action (if required by 2012).	Burbot creel survey conducted in 1991.
Terrestrial Ecosystems			
Maintain a natural range of seral stages and species distribution.	Seral stage and species distribution	Establish natural range of seral stage and species distribution targets by 2014.	Fire history and seral stage distribution analysis required as resources permit.
Cultural Heritage Management			
Work closely with First Nations in managing and protecting the natural and culturalvalues within the park.	Condition of cultural heritage sites	No recreation impacts to archaeological sites.	Backcountry Recreation Impact Monitoring (BRIM) on Carp Lake islands planned for 2011.
Re-establish the Duzcho Trail as a Historic Trail	Condition of use of Duzcho Trail	Public use and appreciation of Duzcho Trail.	Location of trail identified with GPS in 2009.
Recreation Management			
Encourage sustainable use of the fishery in Carp Lake.	Compliance with freshwater fishing regulations	100% Compliance.	Compliance checks planned for summer 2011.
	Events used to promote fishing at Carp Lake	One promotional event every two years.	Parks Day event held in 2008.
	Angling use	Complete review of angling effort on Rainbow Trout when park use reaches approximately 4000 parties.	2010 attendance well below threshold.